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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,954	04/05/2004	Erik J. Shahoian	IMMR-0098B	2293
60140	7590	02/20/2008	EXAMINER	
IMMERSION -THELEN REID BROWN RAYSMAN & STEINER LLP			BECK, ALEXANDER S	
P.O. BOX 640640			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/816,954

Applicant(s)

SHAHOIAN ET AL.

Examiner

Alexander S. Beck

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 46-50, 52-55 and 85-113 is/are pending in the application.
- 4a) Of the above claim(s) 86, 89-93, 96, 99-103, 105 and 108-112 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 46-50, 52-55, 85, 87, 88, 94, 95, 97 and 98 is/are allowed.
- 6) ☒ Claim(s) 104, 106, 107 and 113 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Acknowledgment is made of the amendment filed Nov. 19, 2007 ("Amend."), in response to the Office action mailed Aug. 21, 2007 ("Office action"), and in which: claims 104 and 113 are amended; and the rejections of the claims are traversed. Claims 46-50, 52-55 and 85-113 are currently pending (of which claims 86, 89-93, 96, 99-103, 105 and 108-112 are withdrawn) and an Office action on the merits follows.

Claim Rejections - 35 USC § 112

2. The rejection of claims 46-50, 52-55, 85, 87, 88, 94, 95, 97 and 98 under 35 U.S.C. 112, first paragraph (Office action, ¶¶ 2-3), is withdrawn in light of applicant's arguments (Amend., pp. 11-12).

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 104, 107 and 113 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,808,603 to Chen ("Chen") in view of a computer-generated English translation of JP Patent Publication No. 09-026850 by Ozaka et al. ("Ozaka").

As to claims 104 and 113, Chen discloses an interface device (10, 20, 30) for use with a computer, device, comprising: a housing (10, 20, 30) having a moveable portion (e.g., top portion 10 that is grasped by a user) and a base portion (20, 30), wherein the moveable portion (10) is moveable with respect to the base portion (20, 30) while coupled to the base portion (20, 30) (Chen, Figs. 4-5). A sensor (33, 336, 34, 346) is coupled to the housing (10, 20, 30) and configured to output a sensor signal to the computer device based on a manipulation of the housing (10, 20, 30) by a user (Chen, col. 6, l. 37 - col. 7, l. 33).

Chen does not disclose expressly an actuator coupled to the moveable portion of the housing, the actuator having an eccentric mass and configured to actuate the eccentric mass to output an inertial haptic force to the moveable portion in response to an actuating signal from the computer device, wherein the inertial haptic force is felt by the user when in contact with the moveable portion of the housing.

Ozaka discloses an interface device for use with a computer device, comprising: a housing having a top portion, which is grasped by a user, and a base portion; and an actuator (201, 202) coupled to the upper portion (Ozaka, drawing 10), the actuator having an eccentric mass and configured to actuate the eccentric mass to output an inertial haptic force to the top portion in response to an actuating signal from the computer device, wherein the inertial haptic force is felt by the user when in contact with the top portion of the housing (Ozaka, ¶¶ [0016, 0080]). At the time the invention was made it would have been obvious to one of ordinary skill in the art to modify the interface device of Chen such that an actuator having an eccentric mass was provided to output an inertial haptic

force to the top portion of a housing grasped by a user (e.g., the moveable portion of Chen), as taught/suggested by Ozaka. The suggestion/motivation for doing so would have been to provide haptic feedback corresponding to the graphic environment in which the interface device is operating, thus enhancing user interaction with a computer device through tactile response (Ozaka, ¶ [0016]).

Thus, Chen as modified by Ozaka teaches/suggests an actuator (Ozaka, 201, 202) coupled to the moveable portion of the housing grasped by a user (Chen, 10), the actuator having an eccentric mass and configured to actuate the eccentric mass to output an inertial haptic force to the moveable portion grasped by a user (Chen, 10) in response to an actuating signal from the computer device, wherein the inertial haptic force is felt by the user when in contact with the moveable portion of the housing (Ozaka, ¶¶ [0016, 0080]).

As to claim 107, Chen discloses wherein the moveable portion (10) is graspable by the user (Chen, col. 6, l. 37 - col. 7, l. 33).

5. Claim 106 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen and Ozaka as applied to claims 104, 107 and 113 above, and further in view of U.S. Patent No. 6,452,586 to Holmdahl et al. ("Holmdahl").

As to claim 106, neither Chen nor Ozaka disclose expressly wherein the moveable portion is a button on the housing. Holmdahl discloses an interface device (100) comprising an actuator (134, 162) coupled to a moveable portion (102, 104) that is a button on the housing, wherein the actuator (134, 162) outputs a haptic force to the moveable button portion in response to an actuating signal from a computer device. At the time the invention was made it would have been obvious to a person of ordinary skill in the art to further modify the teachings of Chen and Ozaka such that the haptic output

force was felt by a user when in contact with a button of the housing, as taught/suggested by Holmdahl. The suggestion/motivation for doing so would have been to stimulate a localized area of the housing in response to a signal from the computer system, thus enhancing user interaction with a computer device through tactile response (Holmdahl, Abstract).

Allowable Subject Matter

6. Claims 46-50, 52-55, 85, 87, 88, 94, 95, 97 and 98 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

As to claim 46, the prior art of record fails to teach or suggest a device for sensing movement in an x-y plane, comprising: an actuator configured to output a haptic effect, the actuator having an eccentric mass rotatable about a shaft, the actuator configured to rotate the eccentric mass about the shaft with an acceleration upon being activated.; and an actuator sensor coupled to the actuator and configured to measure the amount of rotation of the eccentric mass when the actuator is activated, wherein the actuator controls the amount of rotation of the eccentric mass in response to the measured amount of rotation to output an inertial haptic effect pulse to the housing, as claimed.

As to claim 94, the prior art of record fails to teach or suggest an interface for use with a computer device, comprising: a sensor for outputting a signal based on manipulation of the interface; an actuator coupled to the housing and having an eccentric mass, the actuator configured to rotate the eccentric mass about a shaft in response to an actuating signal; and an actuator sensor coupled to the actuator and configured to measure the amount of rotation of the eccentric mass upon receiving the actuating signal, wherein the actuator controls the amount of rotation of the eccentric mass in response to

the measured amount of rotation to output an inertial haptic effect pulse to the housing, as claimed.

Response to Arguments

7. Applicant's arguments with respect to the prior art rejections have been considered but are moot in view of the new grounds of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander S. Beck whose telephone number is (571) 272-7765. The examiner can normally be reached on M-F, 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

asb

Feb. 8, 2008



ALEXANDER EISEN
SUPERVISORY PATENT EXAMINER